basic imagery interpretation report

Feodosiya Naval Missile Support Facility (S)

MISSILE RANGES: NAVAL LAUNCHED FACILITIES

25X1

USSR

25X1
25X1

INSTALLATION OR ACTIVITY NAME					COUNTRY
Feodosiya Naval Missile Support Facility					UR
UTM COORDINATES	GEOGRAPHIC COORDINATES	CATEGORY	BE NO.	COMIREX NO.	NIETB NO.
NA	45-08-08N 035-33-37E				

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MAP REFERENCE

DMA. USATC, Series 200, Sheet 0249-16, scale 1:200,000

LATEST IMAGERY USED	NEGATION DATE (If required)
	NA

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ABSTRACT

1. (TSR) This report describes activity observed at the Feodosiya Naval Missile Support Facility in the USSR from May 1975 through March 1980 and briefly summarizes activity prior to May 1975.

2. (TSR) Currently, the SA-NX-6 and SA-NX-7, naval versions of the SA-X-10 and SA-11 missile systems, respectively, are being assembled and checked out at the facility for flight testing at Feodosiya Naval Missile Test Range. There are ambiguities in both the SA-NX-6 and the SA-NX-7 programs. An absence of reported SA-NX-6 firings has made it difficult to assess the progress or lack thereof in this program. However, substantial amounts of support equipment and missile components for this system have been identified at the facility and analysis of the activity involving them would seem to indicate that the program is viable.

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4. (TSR) A new missile assembly/checkout section has been constructed at the facility. Work on the section began in late 1977 and appeared to be externally complete by early 1980. The timing of the construction indicates that it is probably not associated with the ongoing SA-NX-6 or SA-NX-7 programs but rather for a new cruise or SAM system, as yet unidentified.

5. (TSR) The number of SS-N-2 crates at the facility has been greatly reduced since mid-1979.

6. (TSR) This report includes a location map and nine annotated photographs and will serve as a basic for future facility and activity updates on the Feodosiya Naval Missile Support Facility.

INTRODUCTION

7. (TSR) Feodosiya Naval Missile Support Facility is 18.9 kilometers northeast of Feodosiya Naval Base and Ship Repair Yard (on the southeast coast of the Crimean Peninsula in the Black Sea. Related facilities include Feodosiya Naval Base and Ship Repair Yard, Chernomorskoye Missile Test and Evaluation Facility (MTEF: , and probably Feodosiya Probable Naval Weapons Research and Development Facility (BE Feodosiya Naval Missile Test Range Instrumentation Site 11 (BE is collocated with the support facility (Figure 1).

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8. (TSR) Feodosiya Naval Missile Support Facility is the primary support center in the Black Sea for all naval antiship cruise and SAM systems undergoing flight tests at the Feodosiya Naval Missile Test Range.

9. (TSR) Missile crates and canisters identified at Feodosiya have included the SS-N-2, SS-N-3, SS-N-7, and SS-N-9 antiship cruise missiles and the SA-N-3, SA-N-4, and SA-6 SAM systems. Most recently identified were the SA-NX-6 and SA-NX-7.

10. (TSR) A new missile assembly/checkout section, constructed between late 1977 and early 1980, is probably for a new cruise or SAM program rather than either the SA-NX-6 or SA-NX-7 SAM programs.

BASIC DESCRIPTION

11. (TSR) The support facility is almost rectangular in shape. It is bordered by the Black Sea along the south side and secured by a single wire fence on the remaining three sides (Figure 2). Internally, the facility is divided roughly into seven large areas which are separately secured in varying degrees: housing; administration/support; missile handling; missile storage; and a liquid propellant service area. The other two areas are the interferometer and electronic countermeasures (ECM) sites of Instrumentation Site 11. Other portions of Instrumentation Site 11 are also scattered throughout the support facility.

Housing Area

12. (TSR) The housing area is at the far western end of the support facility (Figure 3). A continuous wire fence separates it from the rest of

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the support facility with access by way of three gates. Within its boundaries are four separately fenced areas including a probable water well and a coal and fuel storage yard. Also within the housing area are an instrumentation position, which was first seen, complete, on [redacted] and which may be a part of Instrumentation Site 11; four large hardstands north of the instrumentation position, the largest of which was constructed between [redacted] and the housing itself which consists of 14 clustered buildings and seven other buildings scattered around the area. The presence of an elementary-type school suggests that at least a part of the housing in this area is dependent housing.

Administration/Support Area

13. (TSR) Directly east of the housing area is the administration/support area (Figure 4). Although there is no contiguous barrier around this area (other than the perimeter fence of the support facility), fences around the adjacent areas, in effect, isolate the administration/support area. The administration/support area consists of 20 buildings, a vehicle park, and a communications site. In addition to administration buildings and possible barracks/classrooms, facilities identified in this area include the messhall; food storage building; firehouse; fire water resevoir; steamplant; newly constructed powerplant (see missile handling area); sports areas for basketball, volleyball, track, and soccer; and an obstacle course.

14. (TSR) The vehicle park is separately secured and divided into four sections (numbered 1 through 4, Figure 4, starting at the western end). Around the perimeter of the concrete are four garages and in the fourth section there are two small support buildings and a fueling point. SA-X-10-associated equipment has been identified in sections 1, 2, and 3. 25X1

15 (TSR) The communications site is also separately secured and consists of three buildings, a garage, and a bunker. A mast is positioned on the eastern end of the bunker. 25X1

16. (TSR) Just outside the eastern fence of the communications site is a small, possible personnel shelter. There are at least two, possibly four, other personnel shelters in the field north of the buildings in the administration/support area.

Missile Handling Area

17. (TSR) The missile handling area is east of the administration/support area and is secured by board and wire fences (Figure 5). For descriptive purposes it will be divided into five sections.

New Missile Assembly/Checkout Section

18. (TSR) Minor construction was observed in section A in late November 1977 with the building of a new road pattern around the future location of a sideless shed (item 6, Figure 5). Extensive work did not begin until August or

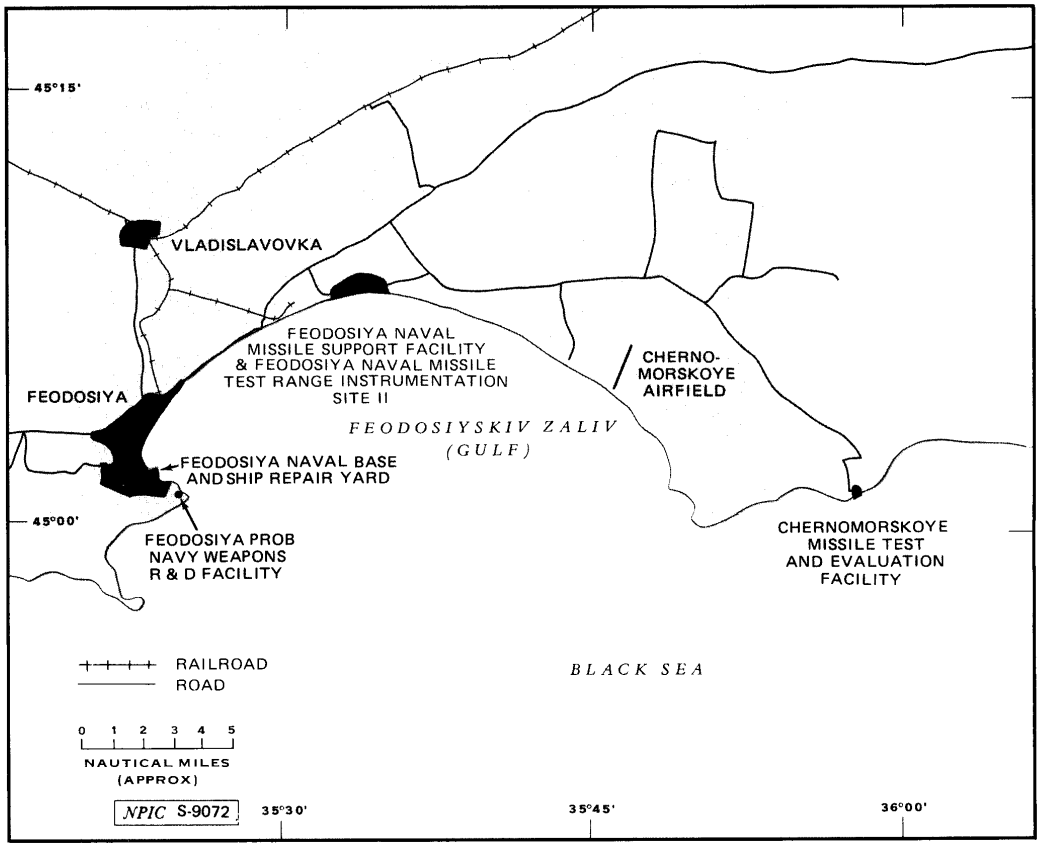

FIGURE 1. LOCATION OF FEODOSIYA NAVAL MISSILE SUPPORT FACILITY AND RELATED FACILITIES, USSR

September 1978 when an addition and a connecting passageway (items 1A and 1B) were built onto an existing support building (item 1C). Another support building (item 3) and a possible garage (item 4) were under construction at this time.

19. (TSR) Excavation for an unidentified structure (item 2) was seen in late November 1978, but it was not until March 1979 that work was begun on the newest missile assembly/checkout building and the sideless shed (items 5 and 6). Other construction possibly related to that of the new missile assembly/checkout section consists of a new powerplant in the administration/support area and an unidentified position in the missile storage area. By July, the unidentified position had been completed and the new missile assembly/checkout building had been roofed. The new powerplant was not roofed until September, and the stack was not seen until December. On the latest usable coverage of the support facility, [redacted] all of the buildings and the road network within the new missile assembly/checkout section were externally complete.

Old Missile Assembly/Checkout Sections

20. (TSR) There are three old missile assembly/checkout sections, each of which consists of a large missile assembly/checkout building. The assembly/checkout building of section B lies within a fenced compound at the western end of the missile handling area. The only other building in the compound has a small upwardly curved vent, which suggests that it may be an engine runup building.

21. (TSR) The assembly/checkout building in section C has a lightning arrester at each end and is enclosed by a wire fence. Also within the fenced area are a small bunker, a support building, and a storage revetment. A steamplant is outside the fence to the east.

22. (TSR) The assembly/checkout building in section E is a drive-through building secured by a board fence. A wire fence in turn surrounds the building and a small amount of open field. To the west of the assembly/checkout building is a small possible personnel shelter.

Support Section

23. (TSR) This section is secured by a wire fence and includes two large support buildings and three small ones. Three buildings at Instrumentation Site 11 are east and west of the support section and will be described further under Instrumentation Site 11.

Missile Storage Area

24. (TSR) The missile storage area is directly east of the missile handling area and is secured by a double wire fence (Figure 6). Inside the fences are four bunkers (items 1, 2, 4, and 6), two support buildings (items 3 and 5), storage revetment 3, an open field storage area, and a newly constructed, unidentified position consisting of two rectangular structures, [redacted] on a concrete pad secured by a wire fence (inset). There are also two identical buildings which are both revetted on three sides with the revetment for the fourth side across a road with passageway through its middle. Immediately outside the entrance is a possible administration building and across the road from it are three small buildings, one of which is secured by a double wire fence. The function of this last group of buildings is unknown.

Liquid Propellant Service Area

25. (TSR) The liquid propellant service area (Figure 7) is immediately east of the missile storage area. This area is secured by a double wire fence and consists of two service points both on the same side of a figure-eight-shaped road pattern.

Instrumentation Site 11

26. (TSR) As stated previously, Instrumentation Site 11 is collocated with and scattered throughout the support facility. It consists of three buildings in the missile handling area and two of the large separately secured areas which make up the support facility. It may also include the instrumentation position in the housing area and the unidentified position in the missile storage area. The three buildings in the missile storage area are the L-shaped operations and interferometer control buildings and a building with the roof-mounted SHIP WHEEL antennas (Figure 5). 25X1 25X1

27. (TSR) The interferometer site (Figure 7) is at the easternmost end of the support facility across the road from the liquid propellant service area. It is a VT-2B-type interferometer with a baseline of 180 meters and legs of [redacted] and [redacted] The site is secured by a wire fence. 25X1 25X1

28. (TSR) The ECM site (Figure 8) is on the coastline, in about the middle of the support facility. It too is secured by a wire fence and consists of a support building and a T-shaped road. The support building is at the junction of the "T" Four TUB BRICK radar vans are normally parked along the top of the "T", two on either side of the support building. From four to six probable electronics-related vehicles are usually parked just below the support building on a broadened spot in the road.

Activity Related to Current Test Programs

SA-NX-6

29. (TSR) There are four locations in the support facility where SA-NX-6-related activity and equipment has been consistently observed: the vehicle park, storage revetments 2 and 3, and assembly/checkout building 3.

30. (TSR) The first equipment associated with the SA-NX-6 was identified at this facility in May 1975. Two modified SA-5 canister transporters, identical to those identified at Sary-Shagan Missile Test Center Launch Complex 6 [redacted] in connection with the new SA-X-10 program, were seen in the vehicle park. 25X1 25X1 25X1

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31. (TSR) The next SA-NX-6 equipment seen at the facility was an SA-3/SA-5 computer van, two probable computer/generator vans, the SA-X-10 engagement radar (FLAP LID), and two SA-NX-6 missile canisters. All of this equipment was present by July 1976. In October, four SA-NX-6 missile crates were identified at assembly/checkout building 3 (one may have been present as early as September) and in July 1977, six were observed; however, at that time, they were in storage revetment 2. Also in July, one of the modified SA-5 transporters had been moved to assembly/checkout building 3 and appeared to be fully loaded under the canvas cover.

32. (TSR) Two more SA-NX-6 missile crates were seen in storage revetment 2 in December 1977, increasing the total number to eight. The crates remained here until [redacted] at which time all of them had been removed. On the same coverage, however, there were eight SA-NX-6 missile crates in storage revetment 3, which is the first time these crates had been identified here. In September, the tops of some of the crates had been removed and, by [redacted] all of the crates had been removed. SA-NX-6 missile crates were not seen here again until [redacted] when another eight were brought in.

33. (TSR) Movement of the crates was paralled by activity at assembly/checkout building 3 and movement of the modified SA-5 transporter at the vehicle park.

34. (TSR) Between July and October 1978, the modified SA-5 transporter at assembly/-checkout building 3 was seen both loaded and unloaded. Twice SA-NX-6 canisters were on the ground beside the transporter, although it was not empty each time. This sequence of events was repeated in mid-1979.

35. (TSR) During the same time period, the modified SA-5 transporter was gone from the vehicle park several times, on two of these occasions it was seen at assembly/checkout building 2. The transporter was also moved from section 1 to section 3 of the vehicle park and has remained in section 3 since late November 1978. The transporter was only observed out of the vehicle park once prior to 1978, on [redacted]

36. (TSR) A new instrumentation position had been built at the far western end of the support facility by [redacted] It consists of a hardstand, an SA-3/SA-5 type computer van, and a 2-meter dish mounted on an antiaircraft artillery gun carriage. Coverage of [redacted] revealed that the hardstand had been enlarged. The SA-X-10 engagement radar had been moved from the vehicle park to a place near this position by [redacted] It is not known whether this position is an extension of Instrumentation Site 11 (and therefore permanent) or for the SA-NX-6/SA-NX-7 programs, or a combination of both.

37. (TSR) However, even with the substantial amount of support equipment, the large number of SA-NX-6 missile crates, and activity involving both, there have been no reported launches of the SA-NX-6 missile in the Black Sea. It is, therefore, difficult to assess the status of this program.

SA-NX-7

38. (TSR) The SA-NX-7 is the naval version of the SA-11, which in turn is an upgraded version of the SA-6. Both the SA-6 and SA-11 were flight tested at Emba Missile Test Center ([redacted] and, during each of these programs some of the equipment used at Emba was also seen at Feodosiya. 25X1

39. (TSR) During 1971 and 1972, SA-6 missile canisters were seen at the support facility in addition to ground support and associated electronics equipment which was observed at Chernomorskoye MTEF. The system, however, apparently was never adopted for use by the Soviet Navy.

40. (TSR) The first probable SA-NX-7 (SA-11)-related equipment seen at the support facility was a [redacted] tracked vehicle, similar in 25X1
appearance and dimensions to the SA-6 trans- 25X1
porter-erector-launcher (TEL) which was being used at Emba as the prototype SA-11 TEL. The TEL arrived at the support facility by [redacted] 25X1
and had departed by [redacted] A similar 25X1
vehicle was later seen at Chernomorskoye MTEF in April. 25X1

41. (TSR) A single SA-NX-7 missile canister was identified in storage revetment 2 on [redacted] 25X1
[redacted] although it may have been present as 25X1
early as November. The interpretability of the imagery and the variety and manner in which objects are stacked in storage revetment 2 makes it difficult to determine much else about the movement of the canister.

42. (TSR) The last association between the SA-NX-7 and the SA-11 programs is a [redacted] 25X1
meter crate. The crate has distinctive markings (Figure 9) and has been seen in storage revetment 3 at the support facility and at the T-shaped building in the operations support area at Emba. It is not known at this time what is in the crate, but its identification at both Feodosiya and Emba indicates a connection between it and the SA-NX-7/SA-11 systems.

43. [redacted] Although there has been only 25X1
minimal evidence of the SA-NX-7 at the support facility between mid-1978 and the end of 1979,

[redacted] 25X1
25X1

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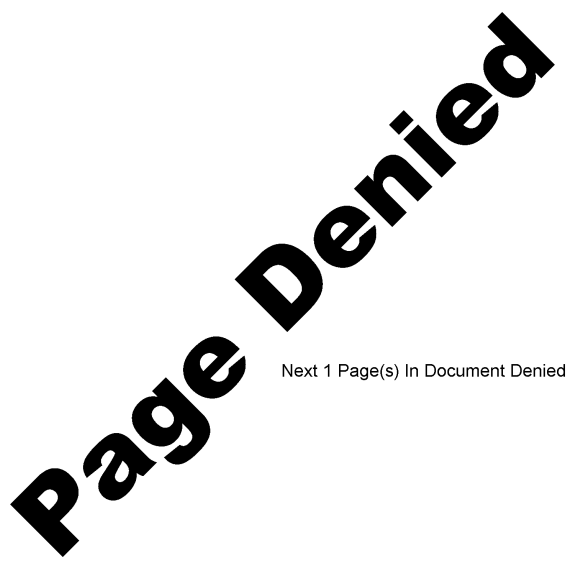
Other Activity

44. (TSR) Approximately ten SS-N-2 crates 25X1
have been stored in the missile storage area since early 1974 (SS-N-2 crates were also seen elsewhere in the facility but were gradually removed or 25X1
placed in this area). In late May 1979, the number of crates had declined to six and by early August there were only two.

45. (TSR) On [redacted] a [redacted] 25X1
meter, canvas-covered, possible airframe was observed in the compound of assembly/checkout building 3. Its appearance coincided with the movement of an [redacted] crate which was 25X1
also in the compound. The crate may have been present as early as April.



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REFERENCES

IMAGERY

(TSR) All applicable KEYHOLE imagery acquired from [redacted] was used in the preparation of this report. 25X1 25X1

MAPS OR CHARTS

DMA. US Air Target Chart, Series 20, Sheet 0249-16, scale 1:200,000 (UNCLASSIFIED)

DOCUMENT

1. DIRNSA/W15. [redacted] W154/5-55-80, *Computer Listing for SA-X-11 Firings from the Black Sea,* 13 Mar 80 (TOP SECRET [redacted] 25X1 25X1

RELATED DOCUMENTS

CIA. [redacted] IAS/OWI/TCS/75-12, *The Two Major Soviet Black Sea Naval Test Ranges and Their Associated Weapons and Support Facilities,* Oct 75 (TOP SECRET [redacted] 25X1 25X1 25X1

NPIC. [redacted] SR-063/78, *Probable Components of the SA-X-11 at Feodosiya, USSR (TSR),* Sep 78 (TOP SECRET [redacted] 25X1 25X1

REQUIREMENT

COMIREX R01
Project 200005DR

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Soviet Strategic Forces Division, Imagery Exploitation Group, NPIC, [redacted] 25X1 25X1

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